

### Amendments to the Claims

Claim 1 (Currently amended):        A method of transmitting data using pulse modulation, the method comprising:

receiving bits of data from a memory unit;

transforming a plurality of the bits of data into ~~a single transmission~~an ultra wideband pulse, the ~~single transmission~~ultra wideband pulse having a pulse ~~characteristic~~duration selected from a set of ~~at least ten predetermined pulse characteristics~~durations, one of which is corresponding to the plurality of bits of data; and

transmitting the ~~single transmission~~ultra wideband pulse over a guided medium to a receiver ~~using pulse modulation and~~ without using a carrier signal to transmit the ~~single transmission~~ultra wideband pulse;

wherein ~~the set of at least ten pulse characteristics correspond to pulse durations and wherein the pulse durations include ten separate pulse durations~~, each of the ~~separate~~ pulse durations within the set of ten predetermined pulse durations correspond~~se~~corresponding to one of integers 0 through 9.

Claim 2 (Cancelled).

Claim 3 (Original):    The method of claim 1 wherein the data is in the form of universal character encoding.

Claim 4 (Currently amended):        The method of claim 1 further comprising:

receiving the ~~single transmission~~ultra wideband pulse from the guided medium at the receiver;  
and

transforming the ~~single transmission~~ultra wideband pulse into the plurality of bits of data corresponding to the ~~characteristics~~durations of the ~~single transmission~~ultra wideband pulse.

Claims 5-20 (Cancelled).

Claim 21 (Currently amended): A method of transmitting data ~~using pulse modulation~~, comprising:

receiving at least two digital bits of data from a memory unit;

transforming the at least two digital bits of data into ~~[[a]] single transmission-an ultra wideband~~ pulse, the ~~single transmission-ultra wideband~~ pulse having a pulse duration selected from a set of at least ten different predetermined pulse durations, one of which corresponds to the bits of data;

transmitting the ~~single transmission-ultra wideband pulse without using a carrier signal to transmit the transmission pulse.~~

Claim 22 (Previously presented): The method of claim 21 wherein the transmission pulse is a pulse of light and wherein the step of transmitting is transmitting over fiber optic cable.

Claims 23-37 (Cancelled).

Claim 38 (Currently amended): A method of transmitting data with ~~electronic-ultra wideband~~ pulses, the method comprising:

receiving bits of data from a memory unit;

transforming a plurality of the bits of data into a single ~~transmission-ultra wideband pulse-of electrical energy~~, the single ~~transmission-ultra wideband~~ pulse having a pulse ~~characteristic duration~~ selected from a set of ten or more predetermined pulse ~~characteristics durations~~, one of which is corresponding to the bits of data; and

transmitting the ~~transmission-ultra wideband~~ pulse over a transmission medium without using a carrier signal to transmit the ~~transmission-ultra wideband~~ pulse.

Claims 39-44 (Cancelled).

Claim 45 (Previously presented): The method of claim 38 wherein the data is in the form of universal character encoding.

Claim 46 (Currently amended): The method of claim 38 further comprising:  
receiving the single ~~transmission-ultra wideband~~ pulse from the transmission medium; and  
transforming the single ~~transmission-ultra wideband~~ pulse into a plurality of bits of data  
corresponding to the specific characteristics of the ~~transmission-ultra wideband~~ pulse.

Claim 47 (Currently amended): A method of transmitting data with electronic pulses, the  
method comprising:  
receiving bits of data from a memory unit;  
transforming a plurality of the bits of data into a ~~single transmission pulse of electrical energy a~~  
monocycle ultra wideband pulse, the single ~~transmission~~-pulse having a pulse position  
selected from a set of ten or more predetermined pulse positions, one of which is  
corresponding to the bits of data; and  
transmitting the ~~single transmission-ultra wideband~~ pulse over a transmission medium ~~without~~  
using a carrier signal to transmit the single transmission pulse.

Claim 48 (Cancelled).

Claim 49 (Previously presented): The method of claim 47 wherein the data is in the form of  
universal character encoding and wherein the plurality of bits represent a digit associated with a  
universal character.

Claim 50 (Currently amended): The method of claim 47 further comprising:  
receiving the ~~single transmission-ultra wideband~~ pulse from the transmission medium; and  
transforming the ~~single transmission-ultra wideband~~ pulse into a plurality of bits of data  
corresponding to the position of the transmission pulse.

Claims 51-57 (Cancelled).

Claim 58 (Currently amended): A method of transmitting data, the method comprising:  
representing a symbol comprising at least two bits of data by varying a pulse ~~characteristic~~  
duration of a single time modulated ultrawideband radio-frequency pulse wherein the  
pulse ~~characteristic~~ duration is selected to be of one of a set of at least ten pulse  
~~characteristics~~ durations based on the value of the at least two bits of data;  
transmitting the time modulated ultrawideband pulse over a guided medium from a transmitter to  
a receiver.

Claims 59-61 (Cancelled).

Claim 62 (Previously presented): A method of transmitting data, comprising:  
representing a symbol encoding a plurality of bits of data using a pulse characteristic of a single  
time modulated ultra wideband radio-frequency pulse;  
transmitting the single time modulated ultra wideband radio-frequency pulse over a guided  
medium from a transmitter to a receiver;  
wherein the step of representing comprises encoding the plurality of bits into a base 10  
representation, such that the single time modulated ultra wideband pulse corresponds to a  
digit between 0 and 9.

Claim 63 (Previously presented): The method of claim 62 wherein guided medium is an  
electrically conductive guided medium.

Claim 64 (Previously presented): The method of claim 62 wherein the pulse characteristic is  
a pulse duration.

Claim 65-66 (Cancelled).